



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,204	09/01/2004	Robert J. Devins	BUR920030020US1	5203
24241	7590	06/15/2006	EXAMINER	
IBM MICROELECTRONICS INTELLECTUAL PROPERTY LAW 1000 RIVER STREET 972 E ESSEX JUNCTION, VT 05452			BAE, JI H	
			ART UNIT	PAPER NUMBER
			2115	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/711,204

Applicant(s)

DEVINS ET AL.

Examiner

Ji H. Bae

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8, 10, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Gustafsson et al., U.S. Patent No. 6,701,429 B1.

Regarding claim 1, Gustafsson teaches a method of initializing a plurality of processors in an integrated circuit, the method comprising the steps of:

identifying each one of the processors ["WhoAml register", col. 5, lines 57-66];

executing boot code for initializing each one of the processors, the boot code containing specific code for at least one of the processors and common code that is common for each one of the processors [Fig. 3], the specific code being accessed according to the identity of the processor executing the boot code [col. 6, lines 8-13, 32-50].

Gustafsson also teaches that the multiprocessor is embodied on an integrated circuit [on-chip multiprocessor, col. 4, lines 53-57].

Regarding claims 2 and 3, Gustafsson teaches that a unique value is assigned to a WhoAml register for each processor [Fig. 3, code tests if WhoAml register identifies as processor 1, 2, 3, etc].

Regarding claims 4-8, Gustafsson teaches the method of claims 1-3, and also teaches the apparatus with means to implement the claimed method, and the integrated circuit that

implements the claimed method. Gustafsson also teaches that the integrated circuit comprises a bus and a memory.

Regarding claims 10 and 11, the limitations recited appear to be similar in scope to those recited in claims 1-3, and are rejected on similar grounds.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gustafsson in view of Boyd et al., U.S. Patent No. 5,895,487.

Regarding claim 9, Gustafsson does not teach a cache shared between the plurality of processors.

Boyd teaches a single-chip multiprocessor system with a shared, integrated L1 and L2 cache [Fig. 10].

It would have been obvious to one of ordinary skill in the art to combine the teachings of Gustafsson and Boyd by implementing the caching system taught by Boyd in the system of Gustafsson. Both Boyd and Gustafsson teach single-chip multiprocessor systems. Boyd discloses the known advantages of caching in his background disclosure [col. 1, lines 15-52], and teaches the additional benefits of his inventive teachings [col. 2, line 62 to col. 3, line 10]. It would have therefore been obvious to one of ordinary skill in the art that the teachings of Boyd could have been applied to the system of Gustafsson, resulting in the improvements disclosed by Boyd.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Schelling et al., U.S. Patent No. 7,036,007 B1;

Fish et al., U.S. Patent No. 6,381,693 B2;

Washington et al., U.S. Patent No. 5,835,775;

Dove et al., U.S. Patent No. 5,938,765;

Lee et al., U.S. Patent No. 6,728,864 B2;

McCrary, U.S. Patent No. 6,513,057 B1;

Alpert, U.S. Patent No. 5,671,435;

Rostoker et al., U.S. Patent No. 5,761,516;

Lee, U.S. Patent No. 5,642,506;

Kennedy, U.S. Patent No. 5,450,576;

Karnik et al., U.S. Patent No. 5,724,527.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji H. Bae whose telephone number is 571-272-7181. The examiner can normally be reached on Monday-Friday, 10 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2115

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ji H. Bae  
Patent Examiner  
Art Unit 2115  
[ji.bae@uspto.gov](mailto:ji.bae@uspto.gov)  
571-272-7181



**CHUN CAO**  
**PRIMARY EXAMINER**